REMARKS

This Amendment is filed in response to the Office Action mailed January 27, 2009 along with a Request for Continued Examination and the associated fees. The Applicant respectfully requests reconsideration of the rejections presented therein. All objections and rejections are respectfully traversed.

Claims 1-34 are pending in the application.

Claim Rejection - 35 U.S.C. §102

At paragraphs 5-6 of the Office Action, claims 1-4, 6, 11-15, 17, 20-27 and 29-32 were rejected under 35 U.S.C. §102(e) as anticipated by Yuasa et al., U.S. Patent No. 6,085,238 (hereinafter "Yuasa").

The Applicant's claim 1, representative in part of the other rejected claims, sets forth (emphasis added):

> 1. A method for use by an intermediate network device having a plurality of interfaces for forwarding network packets among the interfaces, one or more of the interfaces being associated with one or more Virtual Local Area Network (VLAN) designations, the method comprising the steps of:
> *mapping, by a routing processor, each VLAN designation to a site identifier in a table*;
> receiving, on an inbound interface, a packet having a site-local unicast destination address;
> identifying the VLAN designation associated with the received packet;
> utilizing the identified VLAN designation to retrieve the site identifier to which the VLAN designation is mapped;
> *creating a modified destination address by embedding the retrieved site identifier into the site-local unicast destination address*; and
> rendering a forwarding decision for the received packet based on the modified destination address.

Yuasa discusses a virtual LAN (VLAN) "for forming unique virtual groups supporting unicast and multicast priority processing for each terminal with no extra header or tag added to a packet. *See* col. 7, lines 20-24, 34-38, and col. 8 lines 4-10. Specifically, client addresses of VLANs, "such as MAC addresses of terminals 205a1 …, the port IDs

of the ports of the local switches 203a … and the virtual group IDs (VLAN IDs)" are en-
tered into a virtual group registration/routing table 214a. *See* col. 37, lines 61-67 and Fig.
20. Each time a packet is received, the local switch references the registration/routing
table, (i.e., Fig. 20) on the switch and "only when the destination virtual group ID of a
transmission packet does not match the virtual group ID of the local site entered in the
virtual group registration/routing table section 214a …, the packet is forwarded from the
local switch 203a…." *See* col. 37, lines 42-50.

In a completely separate description, <u>two columns</u> later, Yuasa mentions "[a] site
identification code to identify local or internet is placed in a predetermined location of a
packet…." *See* col. 39, lines 55-56. When a packet "is forwarded to the internet or
WAN (wide area network), the site and VLAN-ID of the packet are <u>encapsulated</u> in the
<u>packet</u>…." *See* col. 39, lines 61-64 (emphasis added).

Applicant respectfully urges that Yuasa does not suggest, "***mapping, by a routing
processor, each <u>VLAN designation to a site identifier</u> in a table*** " and "***creating a modi-
fied destination address by embedding the retrieved site identifier into the site-local
unicast destination address***."

Applicant's maps, by a routing processor, <u>each VLAN designation to a site identi-
fier</u> in a table. After a packet is received at an inbound interface and the VLAN designa-
tion associated with the received packet is identified, Applicant can identify the site iden-
tifier that is associated with that VLAN designation in the table. In turn, a modified des-
tination address may be created by <u>embedding</u> the retrieved site identifier <u>into</u> a site-local
unicast <u>destination address</u>. A forwarding decision is then rendered for the received
packet based on the modified destination address.

First, Applicant respectfully urges that Yuasa at no time maps, by a routing proc-
essor, each VLAN designation to a site identifier in a table. The Examiner suggests that
Yuasa discloses mapping a VLAN designation to a site identifier by discussing "a virtual
group registration/routing table section … in which client addresses and virtual group ID
(VLAN IDs) of virtual groups (VLANs) are entered … matches the virtual group ID of

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the local site, … a site identification code to identify local or internet is placed in a prede-termined location of a packet …." *See* Office Action page 13, referring to text at col. 37, lines 38-59 and at col. 39, lines 55-60.

However, the Examiner's extensive redaction of the text of Yuasa has changed the fundamental meaning of the passages, and Yuasa is being attributed teachings it does not contain. This is clear when the full context of theses portions of Yuasa are consid-ered. Yuasa states at col. 37, lines 38-59 (emphasis added):

> The ninth embodiment of the invention is characterized by the fact that lo-cal switches 203a . . . comprise **virtual group registration/routing table sections 214a . . . in which client addresses and virtual group IDs (VLAN-IDs) of virtual groups (VLANs) are entered.** That is, in the lo-cal switch 203a . . . , the client addresses and virtual group IDs (VLAN-IDs) of the virtual groups entered in the virtual group registration/routing table section 214a . . . are referenced and only when **the destination vir-tual group ID of a transmission packet does not match the virtual group ID of the local site entered in the virtual group registra-tion/routing table** section 214a . . . , the packet is forwarded from the lo-cal switch 203a . . . through a local router switch 202 to a main router switch 201. If the destination virtual group ID differs from the source virtual group ID and matches the virtual group ID of the local site, the packet is forwarded to the port of the local switch 203a . . . corresponding to the destination client address.

Clearly, Yuasa is discussing matching **two VLAN IDs** in this description: the VLAN ID of a transmission packet to the VLAN ID of a local site. If the VLANs are not the same, then the packet is not forwarded. Such matching may not fairly be interpreted as mapping in a table a VLAN designation to a different type of identifier, namely, a site identifier.

Two columns later, at col. 39, lines 55-60, Yuasa discusses a tenth embodiment in which (emphasis added):

> **A site identification code to identify local or internet is placed in a predetermined location of a packet**, whereby subnet identifier (subnet ID) of internet protocol of VLAN-ID becomes the same as local VLAN subnet and internet access subnet, and remote and local sites are integrated to a VLAN segment with the same VLAN-ID.

Yuasa is merely mentioning that a "site identification code" may be placed in a packet. No suggestion is made of any mapping in connection with the "site identification code". That is, Yuasa does not "<u>map</u>" a VLAN designation (a first type of ID) <u>to</u> a site identifier (ID) (a second type of ID) in a table.

Second, the Applicant respectfully urges that Yuasa also does not suggest "*creating a modified destination address by embedding the retrieved site identifier into the site-local unicast destination address*."

While the Applicant embeds a site identifier **into a site-local unicast destination address**, Yuasa does not embed his "site identification code" into any destination addresses to create a modified destination address. In contrast, Yuasa simply takes his "site identification code" and places it "in a <u>predetermined location</u> of a packet." *See* Yuasa col. 39, lines 55-56 (emphasis added). For example, the site identification code may be placed in the packet using <u>encapsulation</u>. *See* Yuasa col. 39, lines 61-64. Placing something into a packet (for instance, into an encapsulation header) is quite different than embedding something into a destination address to create a modified destination address. Yuasa makes no mention of changing a destination address to create a modified one that incorporates additional information, such as a site identifier.

Accordingly, the Applicant also respectfully urges Yuasa is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant's claimed "*mapping, by a routing processor, each VLAN designation to a site identifier on a table separate from a routing table … creating a modified destination address by embedding the retrieved site identifier into the site-local unicast destination address*."

Claim Rejections - 35 U.S.C. §103

At paragraph 4 of the Office Action, claims 7-9 and 18 rejected under 35 U.S.C. §103(a) over Yuasa, in view of Chang et al., U.S. Patent No. 6,728,249 (hereinafter "Chang").

At paragraph 5 of the Office Action, claim 19 was rejected under 35 U.S.C. §103(a) over Yuasa, in view of Chang, in further view of Muller et al., U.S. Patent No. 5,938,736 (hereinafter "Muller").

At paragraph 6 of the Office Action, claims 5, 10, 16, 28, 33 and 34 were rejected under 35 U.S.C. §103(a) over Yuasa, in view of Ichikawa et al., U.S. Patent No. 6,728,249 (hereinafter "Ichikawa").

Claims 5, 7-10, 16, 18-19 and 28

The Applicant notes that claims 5, 7-10, 16, 18-19 and 28 are dependent claims that depend from independent claims believed to be allowable for at least the reasons discussed above. Claims 5, 10, 16 and 28 are believed to be allowable due to their dependency, as well as for other separate reasons.

Claims 33 and 34

As for claim 33 and 34, representative claim 33 sets forth (emphasis added):

33. An apparatus comprising:
    a plurality of interfaces configured to receive and forward packets, one or more of the interfaces associated with one or more virtual local area network (VLAN) designations;
    a forwarding information base (FIB) configured to store routing information;
    a routing engine in communicating relationship with the FIB, the routing engine configured to make forwarding decisions for received packets, based at least in part on the routing information in the FIB; and
    a memory in communicating relationship with the routing engine, the memory configured *to store the VLAN designations associated with the device's interfaces in mapping relationship with one or more site identifiers*,

wherein the routing engine is further configured to, in response to receipt of a packet on an inbound interface having a site-local unicast destination address, identify a VLAN designation associated with an outbound interface from which the packet is to be forwarded, *utilize the identified VLAN designation for the outbound interface to retrieve a site identifier to which the VLAN designation is mapp*ed, compare a site identifier associated with an inbound interface with the site identifier associated with the outbound interface, and if the two site identifiers match, forward the packet on the outbound interface, and if the two site identifiers do not match, drop the packet without forwarding.

The Applicant respectfully urges that both Yuasa and Ichikawa are silent regarding the claimed "*to store the VLAN designations associated with the device's interfaces in mapping relationship with one or more site identifiers* … and *... utilize the identified VLAN designation for the outbound interface to retrieve a site identifier to which the VLAN designation is mapped*."

As discussed above in relation to claim 1, Yuasa only describes <u>matching</u> one "virtual group ID" to another "virtual group ID," **not** mapping a "virtual group ID" to "a site identification code." As such, Yuasa may not fairly be interpreted as suggesting a mapping between VLAN designations and one or more site identifiers.

Further, the deficiencies of Yuasa are not remedied by combination with Ichikawa. Ichikawa simply discusses matching "a set of a terminal address and a VLAN-ID" with a "source address 4-2 and VLAN-ID 4-3" in a data packet. *See* Ichikawa col. 9, lines 12-17. Again, no mention is made of any mapping of VLAN designations with one or more site identifiers.

Accordingly, the Applicant respectfully urges that the combination of Yuasa and Ichikawa is legally insufficient to make obvious the present claims under 35 U.S.C. §103 at least because of the absence of the Applicant's claimed "*to store the VLAN designations associated with the device's interfaces in mapping relationship with one or more site identifiers* … and *... utilize the identified VLAN designation for the outbound interface to retrieve a site identifier to which the VLAN designation is mapped*."

Conclusion

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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